Class Syllabus

Financial Modeling is designed to give students practical corporate finance analysis, applying finance and accounting skills learned in prior classes. Fordham participants will have completed Financial Accounting I and II, Financial Management and Investment and Securities (or currently be enrolled) prior to enrolling in this class. In addition to giving students practical modeling skills, the class will also cement their understanding of the subject matter, as participants will be required to demonstrate “hands-on” that their built models function properly.

Depending on the pace of the class, we will follow the following framework:

- **Introduction to Financial Statement Modeling**
  We will review basic finance and accounting as an introduction to the class and various types of financial modeling

- **Pro Forma Financial Statement Modeling**
  - Income Statement – create a fully functional Income Statement modeling in key drivers
  - Balance Sheet / Working Capital Schedule / Depreciation Schedule - create a fully functional Balance Sheet and supportive schedules modeling in key drivers
  - Cash Flow Statement / Debt Schedule – create a fully functional Cash Flow Statement and Debt Schedule modeling in key drivers
  - Financial Ratio Analysis

- **Valuation**
  - Discounted Cash Flow Analysis
  - Comparable Company Analysis
  - Precedent Transaction Analysis

- **Advanced Microsoft Excel Understanding**
  We will devote classes dedicated to more advanced excel modeling and functionality. We will analyze numerous financial problems, including:
  - Valuation Risk – sensitivity testing using Excel “What If” functionality.
  - Capital Budgeting – evaluating and ranking potential investment projects; Excel NPV, IRR, MIRR, Data Tables, Goal Seek. Optimal budgeting under resource constraints.
  - Cost of Equity – understanding, using and comparing the single factor capital asset pricing model (CAPM) the three factor Fama-French model and the Gordon Growth Model
  - Forecasting Key Drivers - modeling key drivers using linear regression; e.g., cost of goods sold vs. sales; Excel TREND, FORECAST, LINEST, Data Analysis ToolPak
    - Introduction to using “S” curves to forecast sales – logistic regression
  - Portfolio Optimization – an introduction to bootstrapping (statistical resampling); various objective functions examined; Sharpe ratio, Downside Risk, VAR; Excel Solver
  - Financial Statement Simulation – an introduction to Monte Carlo using Excel; e.g., maximize expected profit, determine production quantity, when demand has a discrete probability distribution; Excel RAND(), VLOOKUP, Data Table


- Grade is Midterm and Final exam, each 35%, take-home assignments 20%, Class Participation and Attendance 10%